

DETAILED ACTION

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claims 1-9 and 44-55 is drawn to a life sign detection systems, configured with physiological sensors and a processor configured to with an algorithm to perform a medical evaluation classified in class 600, subclass 558.

Group 2, claims 93-106 is drawn to a system for processing information on the physical status of one or more subjects comprising an apparatus for transmitting information configured with communication protocols to transmit information between sensors and hubs, classified in class 600, subclass 523.

Group 3, claims 139-141 is drawn to a system for processing information on the physical status of one or more subjects comprising a sensor in a carrier and an RF transceiver wherein the RF transceiver is configured to send Manchester encoded data, classified in class 340, subclass 870.01.

Group 4, claims 111-120 is drawn to a method for transmitting information on the physical status of a subject which comprises the step of running an algorithm to determine a score and detect a trend based on heart rate data, classified in class 705, subclass 2.

The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The common technical feature between **groups 1 and 2** is that both systems require physiological sensors and collection of information from physiological sensors. However, groups 1 and 2 lack unity of invention since the systems in group 1 must be configured with algorithms to perform a medical evaluation based on the collected information while the system in group 2 must be configured with specific algorithms for communication protocols so that the information from the sensors can be assigned and transmitted to a specific hub.

The common technical feature between **groups 1 and 3** is that both systems require sensors. However, groups 1 and 3 lack unity of invention since the systems in group 1 must be configured with algorithms to perform a medical evaluation based on the collected information while the system in group 3 must be configured with an RF transceiver capable of sending Manchester encoded data bidirectionally.

The common technical feature between **groups 1 and 4** is that the systems and methods relate to the collection of physiological data. However, groups 1 and 3 lack unity of invention since the method in group 4 can be utilized with any system configured to collect heart rate data and capable of generating a score and a trend with such data. The systems in group 1 cannot be utilized with the method in group 4 because the systems in group 1 are not configured to

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generate a trend and a score based on heart rate data. The system in group 1 requires a different method of use for its operation.

The common technical feature between **groups 2 and 3** is that both systems require sensors. However, groups 2 and 3 lack unity of invention since the system in group 2 must be configured with specific algorithms for communication protocols so that the information from the sensors can be assigned and transmitted to a specific hub while the system in group 3 must be configured with an RF transceiver capable of sending Manchester encoded data bidirectionally.

The common technical feature between **groups 2 and 4** is that the systems and methods relate to the collection of physiological data. However, groups 2 and 4 lack unity of invention since the method in group 4 can be utilized with any system configured to collect heart rate data and capable of generating a score and a trend with such data, that is, the method of group 4 does not require the specifics of the system in group 2 for its execution. The system in group 2 cannot be utilized with the method in group 4 because the system in group 2 is not configured to generate a trend and a score based on heart rate data. The system in group 2 requires a different method of use for its operation.

The common technical feature between **groups 3 and 4** is that the systems and methods relate to the collection of physiological data. However, groups 3 and 4 lack unity of invention since the method in group 4 can be utilized with any system configured to collect heart rate data and capable of generating a score and a trend with such data, that is, the method of group 4 does not require

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the specifics of the system in group 3 for its execution. The system in group 3 cannot be utilized with the method in group 4 because the system in group 3 is not configured to generate a trend and a score based on heart rate data. The system in group 3 requires a different method of use for its operation.

REQUIREMENT FOR UNITY OF INVENTION

As provided in 37 CFR 1.475(a), a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in a national stage application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim. See 37 CFR 1.475(e).

WHEN CLAIMS ARE DIRECTED TO MULTIPLE CATEGORIES OF INVENTIONS

As provided in 37 CFR 1.475(b), a national stage application containing claims to different categories of invention will be considered to have unity of

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invention if the claims are drawn only to one of the following combinations of categories:

- (1) A product and a process specially adapted for the manufacture of said product; or
- (2) A product and process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

Otherwise, unity of invention might not be present. See 37 CFR 1.475(c).

Time for Reply

Applicant is reminded that 1-month (not less than 30 days) shortened statutory period will be set for reply when a written requirement is made without an action on the merits. This period may be extended under the provisions of 37 CFR 1.136(a). Such action will not be an "action on the merits" for purposes of the second action final program. M.P.E.P. § 809.02(a).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARIE ARCHER whose telephone number is

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(571)270-3050. The examiner can normally be reached on Monday thru Friday, EST 8:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Chuan Yao can be reached on (571)272-1224. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARIE ARCHER/
Examiner, Art Unit 3769

/SAM YAO/
Supervisory Patent Examiner, Art
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